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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,494	01/26/2001	Elliot M. Furman	10767/4	6230

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SKYMOON RESEARCH & DEVELOPMENT
3045 PARK BLVD.
PALO ALTO, CA 94306

EXAMINER

STEVENS, ROBERTA A

ART UNIT PAPER NUMBER

2665

DATE MAILED: 08/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/771,494

Applicant(s)

FURMAN ET AL.

Examiner

Roberta A Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22, 24-42 and 44-61 is/are rejected.
- 7) ☒ Claim(s) 23 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 8, 11, 12, 16-20, 21, 27, 39-41, 44 and 46-61 are rejected under 35

U.S.C. 102(e) as being anticipated by Sidey (U.S. 5922051).

3. Regarding claim 1, Sidey teaches (figures 1 and col. 3, lines 35 – col.4) a method for automatically directing data in a computer network based on traffic demands, comprising: determining traffic demands of a computer network; and automatically directing data in the computer network based on the determined traffic demands.

4. Regarding claims 2, 50 and 55, Sidey teaches (col. 3, lines 35 – col.4) determining traffic demands of a computer network at least in part from traffic data from a plurality of network elements in the network.

5. Regarding claims 3, 51 and 56, Sidey teaches (col. 3, lines 35 – col.4) determining traffic demands of a computer network at least in part from traffic predictions

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6. Regarding claims 4 and 52, Sidey teaches (col. 3, lines 35 – col.4) determining traffic demands of a computer network at least in part from a request.

7. Regarding claims 5, 12 and 48, Sidey teaches (col. 3, lines 35 – col.4) the request is expressed in terms of one or more of :bandwidth, latency, jitter, loss rate, protection type, or burst size.

8. Regarding claim 8, Sidey teaches (col. 3, lines 35 – col.4) the request is expressed using a user- to-network interface.

9. Regarding claims 11 and 53, Sidey teaches (col. 3, lines 35 – col.4) determining traffic demands of a computer network at least in part from a policy system.

10. Regarding claim 16, Sidey teaches (col. 3, lines 35 – col.4) determining traffic demands of a computer network at least in part from at least two of: traffic data from a plurality of network elements, traffic predictions, a request or a policy system.

11. Regarding claim 17, Sidey teaches (col. 5) the steps of claim 1 repeated periodically.

12. Regarding claim 18, Sidey teaches (col. 5) the steps of claim 1 repeated in response to an event.

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13. Regarding claim 19, Sidey teaches (col. 5) event comprises receipt of service level agreement.
14. Regarding claim 20, Sidey teaches (col. 5) event comprises a change in traffic demand.
15. Regarding claim 21, Sidey teaches (col. 4) automatically directing data through a set of primary paths in the computer network.
16. Regarding claim 27, Sidey teaches (col. 3, lines 35 – col.4) automatically directing data through at least one network element in the computer network.
17. Regarding claims 39 and 40, Sidey teaches (col. 3, lines 35 – col. 4) automatically directing data by provisioning at least one of: label switched path, routing metric, time slot, fiber or wavelength.
18. Regarding claim 41, Sidey teaches (col. 3, lines 35 – col. 4) setting at least one of a cost or a preference metric used by a routing protocol.
19. Regarding claim 44, Sidey teaches (col. 3, lines 35 – col. 4) configuring a path in the computer network.

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20. Regarding claim 46, Sidey teaches (col. 3, lines 35 – col. 4) automatically directing data between at least two nodes in the computer network.

21. Regarding claim 47, Sidey teaches (figure 1) the computer network comprises one of a service provider's core network or a service provider's access network.

22. Regarding claim 49, Sidey teaches (figures 1 and col. 3, lines 35 – col.4) a system for automatically directing data in a computer network based on traffic demand, comprising: a plurality of network elements (node 1....node N) in the computer network; a processor (110) operative to determine traffic demands of the computer network and automatically direct data in a computer network based on the determined traffic demands.

23. Regarding claim 54, Sidey teaches (figures 1 and 3 and col. 3, lines 35 – col.4) a system for automatically directing data in a computer network based on traffic demand, comprising: a plurality of network elements (node 1....node N) in the computer network; a storage device (112); a first processor (310) coupled with the network elements and the storage device operative to collect traffic data and send the data to the storage device; a second processor (305) operative to determine traffic demands of the computer network based on the collected traffic data and automatically direct data in the computer network based on the determined traffic demands.

24. Regarding claim 57, Sidey teaches (figure 3 and cols. 5-6) the second processor automatically directs data in the computer network by sending a plurality of network

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transformation instructions to a third processor; and wherein the third processor determines which of the plurality of network transformation instruction to send to each of the network elements.

25. Regarding claim 58, Sidey teaches (cols. 5-6) wherein the third processor id further operative to arrange the instructions in an order that will not result in an invalid network state.

26. Regarding claims 59 and 60, as for the third processor id further operative to convert a selected instruction into a form appropriate for a selected network element, it is inherent in Sidey's system since data is transmitted to different elements that the appropriate form of data is transmitted in order for the element to properly receive use it.

27. Regarding claim 61, Sidey teaches (figures 1 and col. 3, lines 35 – col.4) a system for automatically directing data in a computer network based on traffic demands, comprising: means for determining traffic demands of a computer network; and means for automatically directing data in the computer network based on the determined traffic demands.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 6, 7, 9, 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidey in view of Donovan (U.S. 2002/0041590 A1).

30. Regarding claims 6, 7 and 14 as mentioned above Sidey teaches all of the limitations of claim 4.

31. Sidey does not teach RSVP.

32. Donovan teaches (abstract) RSVP to request reservation of bandwidth. It would have been obvious to one of ordinary skill in this art to adapt to Sidey he RSVP protocol to ensure the resources are available to provide for an efficient transmission of data.

33. Regarding claims 9 and 15, as mentioned above Sidey teaches all of the limitations of claim 4.

34. Sidey does not teach reserving a private path.

35. Donovan teaches (abstract) the request is expressed in a service level agreement that allows a customer to reserve a private path. It would have been obvious to one of ordinary skill in the art to adapt to Sidey's system Donovan's concept of reserving a private path to ensure the resources are available to provide for an efficient transmission of data.

36. Regarding claim 13, as mentioned above Sidey teaches all of the limitations of claim 1.

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37. Sidey does not teach COPS.

38. Donovan teaches (abstract) COPS. It would have been obvious to one of ordinary skill in the art to adapt to Sidey's system COPS to maintain QoS within the system.

39. Claims 10, 22, 24-26 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidey in view of Donovan and further in view of Galand (U.S. 2004/0042402 A1).

40. Regarding claims 10, 22, 24-26, and 45 as mentioned above Sidey and Donovan teach all of the limitations of claim 9.

41. Sidey and Donovan do not teach a protection path.

42. Galand teaches (abstract) reserving a protection path. It would have been obvious to one of ordinary skill in the art to adapt to Sidey and Donovan's system Galand's protection path reservation to ensure a backup path if there is failure on the private path.

43. Claims 28-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidey.

44. As mentioned above, Sidey teaches all of the limitations of claim 27.

45. It is inherent in Sidey's node (figure 1) has a switch for processing the data it sends and receives. Sidey does not teach specifically a type of switch. However photonic, fiber-to-fiber, waveband-to-waveband, wavelength-to-wavelength, optical packet, optical burst, and electronic switches, label switched router and SONET ADM are well known devices that would have been obvious to one of ordinary skill in the art to adapt to Sidey's to widen the scope of the system.

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46. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sidey in view of Datta (U.S. 6209033 B1).

47. Regarding claim 42, Sidey does not teach load balancing.

48. Datta teaches (figure 6) load balancing. It would have been obvious to one of ordinary skill in the art to adapt to Sidey's system Datta's concept of load balancing to prevent congestion within the system.

Allowable Subject Matter

49. Claims 23 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

50. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Roberta Stevens whose telephone number is (703) 308-6607. The examiner can normally be reached on Monday through Friday from 9:00 am to 5:30 p.m.

51. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor can be reached on (703) 308-6602.

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52. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-3900.

53. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9306

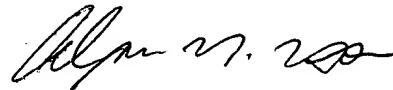
For informal draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA. Sixth Floor (Receptionist).

Roberta A. Stevens

Patent Examiner

08-05-04



ALPUS H. HSU
PRIMARY EXAMINER